

UPDATED 1/16/14

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPS:

Alternative BMPS are not used on this project. Silt Gates are not used on this project. Temporary check dams are used in ditches to provide interim stabilization and flow velocity reduction. The stability of the site is maintained with other conventional BMPS as shown on the plans.

DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

All outfalls are either located further than 1 linear mile upstream or outside of the watershed of an impaired stream segment that has been listed for criteria violated, "Bio F"(impaired fish community) and/or "Bio M"(impaired macro invertebrate community), within Category 4a, 4b or 5, and the potential cause is either "NP"(non point source) or "UR"(urban runoff).

STREAM BUFFER ENCROACHMENT

Stream Buffers are Impacted by this project.

The Contractor is not authorized to enter into stream buffers, except as described in the table below:

	Location of Buffered Streams and State Waters**			Stream Type (Warm/Cold Water)*	Buffer Impacted? (Yes/No)	Buffer Variance Required? (Yes/No)
	Stream Alignment	Begin Station and Offset	End Station and Offset			
Open Water #3	SR 47	Sta. 120+00 17.1' LT	Sta. 132+66 121.6' LT	Warm	Yes	Yes
Impacts to buffer include road realignment, and slopes						
Open Water #3	SR 47	Sta. 132+66 121.6' LT	Sta. 154+25 0' LT	Warm	Yes	No
Impacts to buffer include new bridge construction.						
Open Water #3	SR 47	Sta. 154+25 0' LT	Sta. 172+52 88.4' RT	Warm	Yes	Yes
Impacts to buffer include road realignment, and slopes						

Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column.

- * Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold water streams have a 50-foot buffer as measured from the wrested vegetation.
- **Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

READY MIX CHUTE WASH DOWN

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of Portland cement concrete is prohibited on this site.

In accordance with Standard Specification 107: Legal Regulations and Responsibility to the Public, only the discharge chute utilized in the delivery of Portland cement concrete may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the travelled way, including shoulders, for a wash-down pit. The pit shall be large enough to store all wash-down water without overtopping. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above it shall be graded to match the elevation of the surrounding areas. Alternate wash-down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash-down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from any storm drain, stream, or river, (2) access to the vehicle being used for wash down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide for Ready Mix Chute/Hopper Wash-down".

SAMPLING GENERAL NOTES:

The total site size is 52.2 acres. Representative sampling may be utilized on this project. The individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion index 0-10, 10 being the most erodible soil. The construction activity types are new road on fill, new road in cut, road widening, and maintenance/safety. The disturbed area are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal if it is less than or equal to 0.03 and steep if it is greater than 0.03. The soil erosion index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology and hydraulic studies, construction plans, geotechnical soil survey, and ESPCP, the Department has determined that representative sampling is valid for the duration of the project. The table below shows the groups of similar outfall drainage basins. The increase in turbidity at the specified locations will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative monitored feature are identified in the table below.

SAMPLING INFORMATION											OUTFALL CHARACTERISTICS					
Primary Monitored Feature	Location (Station and Offset)	Name of Receiving Water	Applicable Construction Stage for Monitoring	Sampling Type (Outfall or Receiving water)	Total Project Area (acres)	Drainage Area for receiving water (mi ²)	Upstream Disturbed Area (acres)	Warm or Cold Water Stream	Appendix B NTU Value (Outfall monitoring only)	Allowable NTU Increase (Receiving water monitoring only)	Location Description	Construction Activity	Disturbed Area (acres)	Average Outfall Slope (Rise/Run)	Soil Erosion Index	Alternate Outfall Drainage Basins
1	Sta 134+23, 44.7' LT	Little River	Stages 1,2	Outfall	52.2	712.5	N/A	Warm	600	N/A	FES	New Road on Fill	0.05	0.016	Moderate	2
3	Sta. 174+39, 77' RT	Little River	Stage 1	Outfall	52.2	712.5	N/A	Warm	600	N/A	Ditch	New Road on Fill	0.62	0.038	Moderate	4,5

The primary sampled features specified should be used as the initial sampling locations. An alternate sampled feature may be used if additional sampling is required or to replace a primary sampled feature that is no longer located within an active phase of construction.

INSPECTING AND SAMPLING PROCEDURES

See Special Provision 167 and other contract documents for Inspecting and Sampling Procedures.

MANUAL SAMPLING:

Samples will be taken at the appropriate time as stated in the Part IV.D.5.D. of the permit. Sampling will occur at the designated representative outfall, the sample will be taken in the center of the outfall channel, a large mouth, clean, glass or plastic jar/bottle, labeled with the project number and location will be used to collect sample. The sample container will be held such that the opening faces upstream. Once the sample jar/bottle is full and capped, it will be transported to the location where the turbidity testing will be conducted. Samples may be analyzed at the site with properly calibrated portable turbidimeters. All turbidity tests will be conducted immediately but in no case, later than 48 hours after the time the sample was obtained.

AUTOMATIC SAMPLING:

Samples will be taken at the appropriate times as specified in Part IV.D.5.D. of the permit. Automatic sampling can be accomplished by using a sampling device similar to the ISCO Model 3700 or 6700. These devices can be triggered by flow meters or rain gauges to collect the required samples. This determination will be made on a project by project basis. The probe for the automatic sampler will be placed in the center of the outfall channel. Samples will remain in the automatic sampler until the next business day, when they will be collected and tested.

TESTING:

All turbidity tests shall be done in accordance with 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD. Turbidity results will be recorded and reported to EPD in accordance with Part IV.E. of the permit.

EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE																			
CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE																			
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
INSTALLATION OF CONSTRUCTION EXIT,PERIMETER SILT FENCE & TREE PROTECTION FENCE																			
BRIDGE SUBSTRUCTURE																			
CLEARING & GRUBBING																			
ROUGH GRADING & DRAINAGE																			
INSTALLATION OF STORM DRAIN																			
INSTALL INTERMEDIATE EROSION MEASURES																			
BASE AND PAVEMENT																			
FINAL GRADING																			
FINAL GRADE & GRASSING																			
REMOVE TEMPORARY EROSION MEASURES AND ORANGE BARRIER FENCE																			

VEGETATION AND PLANTING SCHEDULE

ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING PLANT SPECIES, PLANTING DATES, SEEDING FERTILIZER, LIME AND MULCHING RATES FOR THIS PROJECT CAN BE FOUND IN SECTION 700 OF THE CURRENT EDITION OF THE DEPARTMENT'S SPECIFICATIONS AND OTHER APPLICABLE CONTRACT DOCUMENTS, SPECIAL PROVISIONS, OR LANDSCAPING PLANS.

THE SEEDING TABLE BELOW SHOULD BE USED IN DETERMINING GRASS SPECIES DEPENDENT ON PLANTING DATES. COLUMBIA/LINCOLN COUNTIES IS IN PLANTING ZONE 2.

APPLY FERTILIZER AS FOLLOWS:

AGRICULTURAL LIME-UNIFORMLY SPREAD AGRICULTURAL LIME ON THE GROUND AT APPROXIMATE RATE DETERMINED BY THE LABORATORY SOIL TEST.

FERTILIZER MIXED GRADE-UNIFORMLY SPREAD THE FERTILIZER SELECTED OVER THE GROUND AT APPROXIMATELY 1,200 LBS/ACRE. IF USING HIGHER ANALYSIS FERTILIZER WITH HYDROSEEDING, APPLY IT AT THE SAME RATE PER ACRE AS THE STANDARD FERTILIZER.

SELECT FERTILIZER MIXED GRADE SUCH AS 10-10-10, 6-12-12, 5-10-15, OR OTHER ANALYSIS WITHIN THE FOLLOWING LIMITS:

NITROGEN 5 TO 10 PERCENT
PHOSPHORUS 10 TO 15 PERCENT
POTASSIUM 10 TO 15 PERCENT
IF USING MIXED GRADE FERTILIZER FOR HYDROSEEDING, ENSURE IT HAS THE FOLLOWING ANALYSIS:
NITROGEN 5 TO 19 PERCENT
PHOSPHORUS 10 TO 19 PERCENT
POTASSIUM 10 TO 19 PERCENT

MULCHING SCHEDULE

MULCHING MATERIAL	RATE/ACRE
DRY STRAW OR HAY	2.5 TONS
WOOD WASTE, CHIPS	6 TO 9 TONS
SANDUST, OR BARK	(2 TO 3" DEEP)

SEEDING TABLE

		POUNDS (KG) OF SEED PER ACRE (HECTARE)									
		RYE GRASS WILLET CEREAL GRASS (ONTS)	COMMON BERBERIDA GRASS (HILLED)	COMMON BERBERIDA GRASS (UNHILLED)	TALL FESCUE	WEEPING LONE GRASS	WHITE OR CRIMSON CLOVER	COMMON VETCH	SCRUBBED INTERSTATE LESPEDEZA	UNSCRUBBED INTERSTATE LESPEDEZA	
PLANTING ZONES	PLANTING DATES									REQUIRED PERMANENT PLANTING	
1	MARCH 1 - MAY 15	10 (11)	10 (11)	50 (56)						COMMON BERBERIDA GRASS	
1	MAY 1 - JULY 31	10 (11)	10 (11)								
1	AUGUST 1 - FEBRUARY 28	15 (17)									
1	NOVEMBER 15 - JANUARY 31						6 (7)			COMMON BERBERIDA GRASS	
2,3,4	FEBRUARY 25 - AUGUST 31	10 (11)	10 (11)								
2,3,4	SEPTEMBER 1 - FEBRUARY 14	15 (17)									
2,3,4	NOVEMBER 15 - JANUARY 31						6 (7)			COMMON BERBERIDA GRASS	

		PLANT THESE COMBINATIONS ON BACK SLOPES, FILL SLOPES AND AREAS WHICH WILL NOT BE SUBJECT TO FREQUENT MOWING									
1,2	MARCH 1 - JULY 31					4 (5)			50 (56)		INTERSTATE LESPEDEZA OF CROWN VETCH
1,2	AUGUST 1 - FEBRUARY 28				30 (34)			15 (17)		75 (84)	
3,4	FEBRUARY 15 - AUGUST 31					4 (5)			50 (56)		INTERSTATE LESPEDEZA
3,4	SEPTEMBER 1 - FEBRUARY 14				50 (56)					75 (84)	